

Title (en)

SYSTEM AND METHOD FOR TREATING DUST IN GAS EXTRACTED FROM CEMENT KILN COMBUSTION GAS

Title (de)

SYSTEM UND VERFAHREN ZUR BEHANDLUNG VON STAUB IN AUS ZEMENTOFENVERBRENNUNGSGAS EXTRAHIERTEM STAUB

Title (fr)

SYSTÈME ET PROCÉDÉ POUR TRAITER LA POUSSIÈRE DANS LE GAZ EXTRAIT DU GAZ DE COMBUSTION DE FOUR À CIMENT

Publication

EP 1795509 B1 20140618 (EN)

Application

EP 05785528 A 20050920

Priority

- JP 2005017258 W 20050920
- JP 2004283347 A 20040929

Abstract (en)

[origin: EP1795509A1] [Problems] To efficiently remove lead from dust contained in extracted cement kiln combustion gas while reducing facility and running costs. [Means for Solving Problems] A treatment system 1 comprising a probe 3 for extracting a part of combustion gas, while cooling it, from a kiln exhaust gas passage, which runs from an inlet end of a cement kiln to a bottom cyclone; a first classifier 5 for separating coarse powder from dust contained in the combustion gas extracted; a dust collector 7 for collecting dust from the extracted gas containing fine powder discharged from the first classifier 5; and a second classifier 8 for dividing dust discharged from the dust collector 7 into fine powder and coarse powder, and others. Since more lead is distributed on the fine powder side classified by the second classifier 8, lead can efficiently be removed without using chemicals and the like. The fine powder classified by the classifier 8 may be desalted by washing; high-lead-level cake obtained after the washing can be recycled; or salt water can be added to a cement mill. The coarse powder may be added to a cement grinding process or returned to cement material grinding process after the desaltation through washing.

IPC 8 full level

C04B 7/43 (2006.01); **C04B 7/60** (2006.01); **F27B 7/42** (2006.01); **F27D 17/00** (2006.01)

CPC (source: EP KR US)

C04B 7/36 (2013.01 - KR); **C04B 7/436** (2013.01 - EP US); **C04B 7/60** (2013.01 - EP KR US); **F27B 7/42** (2013.01 - EP US); **F27D 17/008** (2013.01 - EP US)

Citation (examination)

THOMAS SPIRO: "Environmental Science in Perspective", 1980, STATE UNIVERSITY OF NEW YORK PRESS, Albany, ISBN: 0873954289, pages: 202

Cited by

CN102620568A; CN104964573A; GB2467602A

Designated contracting state (EPC)

CH DE DK ES FR LI

DOCDB simple family (publication)

EP 1795509 A1 20070613; **EP 1795509 A4 20101006**; **EP 1795509 B1 20140618**; CN 100455532 C 20090128; CN 101027260 A 20070829; DK 1795509 T3 20140901; ES 2478626 T3 20140722; HK 1106216 A1 20080307; JP 4905958 B2 20120328; JP WO2006035630 A1 20080515; KR 101178431 B1 20120831; KR 20070051905 A 20070518; TW 200616927 A 20060601; TW I419858 B 20131221; US 2008092735 A1 20080424; US 7749311 B2 20100706; WO 2006035630 A1 20060406

DOCDB simple family (application)

EP 05785528 A 20050920; CN 200580032584 A 20050920; DK 05785528 T 20050920; ES 05785528 T 20050920; HK 07111568 A 20071026; JP 2005017258 W 20050920; JP 2006537684 A 20050920; KR 20077005973 A 20050920; TW 94132630 A 20050921; US 66339305 A 20050920